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Produktinformation

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Lieferung & Zahlungsart

siehe unsere Liefer- und Versandbedingungen

Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

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SANTA CRUZ BIOTECHNOLOGY, INC.

SerRS (h): 293T Lysate: sc-170165

BACKGROUND

The fidelity of protein synthesis requires efficient discrimination of amino acid substrates by aminoacyl-tRNA synthetases. Aminoacyl-tRNA synthetases function to catalyze the aminoacylation of tRNAs by their corresponding amino acids, thus linking amino acids with tRNA-contained nucleotide triplets. SerRS (seryl-tRNA synthetase), also known as SERS or SARS, is a 514 amino acid member of the class-II aminoacyl-tRNA synthetase family that catalyzes the $tRNA^{Ser}$-serine aminoacylation reaction. Localized to the cytoplasm, SerRS exists as a homodimer and contains a core catalytic domain and a tRNA-binding domain. In addition to recognizing and serylating $tRNA^{Ser}$, SerRS can also recognize and serylate $tRNA^{Sec}$ (tRNAselenocysteine). Via this interaction, SerRS is implicated in selenocysteine (Sec) biosynthesis.

REFERENCES

1. Miseta, A., et al. 1991. Mammalian seryl-tRNA synthetase associates with mRNA *in vivo* and has homology to elongation factor 1α. J. Biol. Chem. 266: 19158-19161.
2. Wu, X.Q. and Gross, H.J. 1993. The long extra arms of human $tRNA^{(Ser)Sec}$ and $tRNA^{Ser}$ function as major identify elements for serylation in an orientation-dependent, but not sequence-specific manner. Nucleic Acids Res. 21: 5589-5594.
3. Vincent, C., et al. 1997. Genomic organization, cDNA sequence, bacterial expression and purification of human seryl-tRNA synthase. Eur. J. Biochem. 250: 77-84.
4. Heckl, M., et al. 1998. Minimal $tRNA^{Ser}$ and $tRNA^{Sec}$ substrates for human seryl-tRNA synthetase: contribution of tRNA domains to serylation and tertiary structure. FEBS Lett. 427: 315-319.
5. Yokogawa, T., et al. 2000. Characterization and tRNA recognition of mammalian mitochondrial seryl-tRNA synthetase. J. Biol. Chem. 275: 19913-19920.
6. Casas, C., et al. 2001. Antibodies against c-Jun N-terminal peptide cross-react with neo-epitopes emerging after caspase-mediated proteolysis during apoptosis. J. Neurochem. 77: 904-915.
7. Online Mendelian Inheritance in Man, OMIM™. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 607529. World Wide Web URL: http://www.ncbi.nlm.nih.gov/omim/
8. Nagao, A., et al. 2007. Aminoacyl-tRNA surveillance by EF-Tu in mammalian mitochondria. Nucleic Acids Symp. Ser. 51: 41-42.
9. Sherrer, R.L., et al. 2008. Divergence of selenocysteine tRNA recognition by archaeal and eukaryotic O-phosphoseryl-tRNASec kinase. Nucleic Acids Res. 36: 1871-1880.

CHROMOSOMAL LOCATION

Genetic locus: SARS (human) mapping to 1p13.3.

PRODUCT

SerRS (h): 293T Lysate represents a lysate of human SerRS transfected 293T cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

APPLICATIONS

SerRS (h): 293T Lysate is suitable as a Western Blotting positive control for human reactive SerRS antibodies. Recommended use: 10-20 µl per lane.

Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. Non-hazardous. No MSDS required.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.